HARGREAVES AND BARDSLEY, LIMITED,

Capital, £10,000, in £10 shares. Object, to acquire the goodwill of the business carried on in Hobsonstreet, Oldham, under the style of Hargreaves and Bardsley; to carry on business as ironfounders, etc. Most of the regulations of Table A apply.

Patents.

SPECIFICATIONS PUBLISHED.

1890.

5,022. DEANS & FOSTER. Twisting strands, threads, etc. 8d.

6,195. BROMHEAD (Die Chemische Fabrik Grinan, 6,195. BROMHEAD (Die Chemische Fabrik Grinau,
Lanchoff & Meyer). Blue colouring
matter. 6d.
6,221. LOVIBOND. "Tintometer." 8d.
6,416. DAVIS, G. E. & A. R. Chlorine. 8d.
6,434. WOOD & BRACEWELL. Supplying moistened
air to enclosures. 8d.
6,686. ASHWORTH & Ors. Carding engines. 8d.
6,717. DAVIS G. E. & A. R. Chlorine. 8d.

6,686. ASHWORTH & ors. Carding engines. 8d 6,831. DAVIS, G. E. & A. R. Chlorine. 8d. 6,932. ABEL (Action Gesellschaft für Anilin Fabrikation). Colouring matters. 6d. 6,946. PITT (L. Cassella & Co.) Colouring matters.

6,996. PHT (L. Cassella & Co.) Colouring matters.
4d.
6,991. DUNN & ors. Cotton-opening machines. 6d.
7,052. KIDDIER & ors. Warp-knitting machines. 8d.
7,359. MEAD. Sacks. 4d.

11,595. MEAD.

11,984. CARLISLE. Compressing cotton, etc. 11d. 14,699. Townsend. Printing oil cloth, etc. 1s. 1d. 180T.

Velvet piled tapestry carpets, 1,796. MITCHELL.

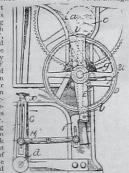
2,218. RAWLINGS. Striped woven fabrics. 4d. 2,287. WHITEHEAD & ors. Card rollers. 6d.

ABSTRACTS OF SPECIFICATIONS.

16.213. October 15, 1889. LOOMS. W. P. THOMPSON, 6, Lord-street, Liverpool.—(A. S. Warner, 24, Sunner Avenue; street Avenue; all of Springfield, Massachusetts, U.S. A.)

Take-up mechanism—The cloth beam or take-up roll c, which, in the case of looms for ribbon, tape, or other narrow goods, consists of several rolls mounted on the shaft a, is driven through

in the case of looms for ribbon, is sists of several rolls mounted of spur gearing from a short shaft g. The latter is operated from the rocking shaft d of the lay through an arm C, link H, dog F, friction driver lever E, and friction pulley D. On the forward motion of the lay the nose I of the dog F presses on the pulley and draws down the lever E on its shaft so that the angular projection bears firmly on the pulley and feeds it forwards. When the lay retires the projection passes freely over the pulley, but may be pushed out of action when required. The link H may be formed double, and is specially mounted on the dog F and arm being adjustable, to vary the tall-branded double, and is specially mounted on the dog F and arm being adjustable, to vary the tall-branded bad x. Some of the d



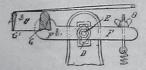
d arm C, its connection with the latter being adjustable, to vary the take-up, by means of a screw n knurled head x. Some of the details may be modified. 84d.

Anureu nead x. Some of the details may be modified. 8 [d. 16,248. October 15th, 1889. Lace. F. R. RADFORD and J. CUTTES, Junior, Sherwood-street, Nottingham. One or both edges of lace borders, trimmings, etc., are made double to enclose the edge of the handkerchief or other article to which they are attached. The full gauge of the machine is used for the main body of the fabric, and the guide-bars and carriages are divided into two sets for making the double edging. 6 [d. Drawings.

18,257. October 15th, 1889. Wiro Fabrics. I. Chort-on and G. L. Scorr, 19, Blackfriars-street, Manchester. Relates to apparatus for feeding wire in the operation of making rower wire fabrics, such as are used for mattresses and other pur-

oses. 84d. Drawings.

16,279. October 16th, 1889. Looms. W. P. Thompson, 6, and street. Liverpool.—(A. F. Parker, Charleston, South Lord-street, Liverpool. Carolina, U.S.A.)



Whip roll or back bearers.— A whip bar Gr and bearing bar G are connected by arms 3, the bar G being mounted in V-bearings in the spring-arms F. The tension of the springs may be b e

nuts 8. The bars G, G1 may be easily removed from their bearings. The stud E of the lever F is adjustable in a slot D. A modification is described.

16 258. October 16th, 1889. Spinning. J. Schoffeld, Crofthead, Littleborough.

For the production of cotton yarn having a wool-like app ance, and for other purposes, the slivers are spin direct if the condenser carding engine, which, for this purpose, is vided with ring and traveller spindles. The slivers are pa-from the rubbers of the carding engine through nipping rol and guides to the spindles. 61d. Drawings.

and guides to the spindles. 6/d. Drawings.

16,311. October 16, 1839. Spinning. J. Anderson, Parch Mills, Keady, Armagh.

Brailing apparatus for flax, etc.—Sets of beaters are arranged as uitable intervals between the pairs of breaking rollers usually employed. The bearings for the breaking rollers are formed in the sides of a table, over which the material travels, and on which it is beaten by one or more sets of vertically sliding beaters, which are raised by pegs on rotating rollers and allowed to fall on to the table. 6/d. Drawings.

16,388. October 17th, 1839. Bleaching Wood. A. Grace, Eagley Mills, near Bolton.

Relates to a process for bleaching dark-coloured wood or bothins, reels, or other articles made of wood, in order to imitate sycamore or other white wood. Consists in treating the material successively with lime water or other alkali, chloride of lime, sodium hyposulphite, fumes of burning sulphur or a solution of sulphurous acid, and finally with acetic or other suitable acid. In some cases the chloride of lime and acid baths are omitted.

sulphurous acid, and finally with acetic or other suitable acid. In some cases the chloride of lime and acid baths are omitted.

4dd.
16,390. October 17th, 1830. Embroidery. F J. PEREV, 5, Arboretum-street, Nottingham.

Applying ornamenting threads, in machines for working groups of designs; thick threads are secured by the embroidering stitches, which overlie but do not pass through them. The ornamenting threads, pass through guides, 4, of the form illustrated, which are fixed on a bar below each row of needles, such bars forming parts of a vertical frame; this frame is slotted to engage fixed guides, and is moved in a plain parallel to the work in such a way that each guide /1 reciprocates through about four right angles incin approximately spiral path round the corresponding needle, which is received in the curved parts 1, 2 alternately. The frame is moved in a plain parallel to the work in such a way that each guide /1 reciprocates through about four right angles incin approximately spiral path round the corresponding needle, which is received in the curved parts 1, 2 alternately. The frame is moved in a plain parallel to the work in such a way that each guide /1 reciprocated by a cam; other operating mechanism may be used. 18.

16,395. October 17th, 1830. Surgical Elastic Fabric. W. Krywood, 7, King's Meadow-road, Nottingham.

A pile or fleece is formed on either side of the fabric made on a hand knitting frame, by placing an additional thread on the needles after a course of ordinary thread, sinking in the usual manner, removing alternate loops by the points for inserting clastic thread, forming another ordinary course, inserting clastic thread, forming another ordinary course and the remaining loops of the pile thread. The bar for regulating the faming for pressing-off. 6d. Drawvings.

16,412 October 17th, 1859. Looms. C. Hamic, Plersee, mear Augsburg, Germany.

16,412 October 17th, 1850. Looms. C. Hamig, Plersee, near Augsburg, Germany.

Picks, indicating number of—A shaft, carrying a toothed wheel from which the cloth roller is driven, is operated through a ratchet wheel from a vibrating lever, and imparts motion through worm gearing to any suitable indicating mechanism. 64d.

Drawings.

16,419. October 18th, 1889. Looms E. P. A. Forster and A. C. Воотиман, Greenholme Mills, Burley-in-Wharfedale, near Leeds.



Shuttle guard.—The guard bar is carried by arms C, the pins P of which are mounted on spring brackets on the hand-rail. The flat parts Ca are held by the springs against plates E on the hand-rail when the guard is in working position. The guard may, however, be turned up out of the way, the parts F being then towards, but not in contact with, the plates E, so that when the loom is started the guard will fall into its

working position. 644.

16,448. October 18th, 1880. Dyes. J. Dawson, Kirkheaton Colour Works, Huddersfield.

Relates to the preparation of basic blue and grey violet colouring matters by oxidation of amido dimethylamiline. Consists in acting upon amido dimethylamiline with chromic acid in the presence of one molecular proportion of hydrochloric acid. For example, hydrochlorate of mitroso-dimethylamiline is reduced by means of sinc-dust and water, and the neutralized solution, when separated from precipitated zinc, is mixed with hydrochloric acid. To the boiling liquid bichromate of soda and hydrochloric acid. The boiling liquid bichromate of soda and hydrochloric acid. The boiling liquid bichromate of soda and hydrochloric acid. The boiling liquid bichromate of soda and hydrochloric acid. The boiling liquid bichromate of soda and hydrochloric acid. The boiling liquid bichromate of soda and hydrochloric acid. The boiling legion become a separate of hydrochloric acid. The boil product is supended in water and treated with insufficient hydrochloric acid to dissolve it, whereby the grey violet colouring matter is extracted and can be precipitated by addition of chloride of sinc and common salt. 64d.

16,462. October 18th, 1839. Sooks. H. B. Ashford. 20.

mon salt. 64d.

16.163. October 18th, 1889. Socks. H. B. Ashford, 20, Marlow-road, South Penge Park, Kent.

Knitting the upper ribbed part of half hose or socks from undyed woollen yarn, and the other part from ordinary undyed yarn, and then dyeing the whole together.

yarn, and then dyeing the whole together. 44d.

16.483. October 18th, 1859. Knitting. J. White, T. G.
L. Miller, and F. T. Pinson, 67, Southwark-street, Surrey,
Circular machines.—A cylinder of increased external diameter
or taper at the base is employed so that cylinders of different internal diameters can be fitted to the same machine. The yarn
guide and latch opener are mounted on a standard so as to slide
to and from the centre of the machine, by means of a slotted
tenon and nut or screw. The dial post is also adjustable radially
by means of a slotted plate and wing-nut, or it may be pivoted
to the plate and acted upon by a spiral or flat spring as indicated
by dotted lines. \$\frac{3}{2}d. Drawings.

16.491. October 18th, 1850. Trimmings. A. E. Preeller,

to the plate and acted upon by a spiral or hat spring as indicated by dotted lines. §2d. Drawings.

16,491. October 18th, 1859. Trimmings. A. E. Preller, 80, Wood-street, London.

Making fringes or trimmings with continuous or interrupted bands of colour by using parti-coloured weft threads obtained by printing on the threads colours corresponding to those of the pattern intended to be reproduced, the threads in general being woven into a fringe by a loom, warp threads being employed as usual to form the heading of the fringe. In preparing silk or worsted thread for conversion into the coloured weft threads, the same is receled into skeins of a length which is an exact multiple of that of the fringe to be woven, say, 6 or 8 times, and in each of these 6 or 8 divisions is printed or dyed the strips of colour lesived, but in reverse order in alternate divisions. In the preparation of chenille weft threads for the above purpose the woven fabric from which the threads are made is printed in colours as above, and then cut up. The fringe may also be made by hand and secured by knots to a gimp heading. Gimp trimming may also be made in a similar manner. 64d.

16,509. October rolt, 1889. Cutting Plie Fabrics. J.

16,509. October 19th, 1889. Cutting Pilo Fabrics. J.
J. Mann, Chatham Buildings, Circus-street, Manchester.

The travelling carriage, as described in Specification No. 16,696, A.D. 1887, is provided with two or more sets of rollers to operate in combination with corresponding sets at each end of the machine for the purpose of increasing the speed of the cloth as it passes under the knife as compared with the speed of the carriage itself. To prevent oscillation the carriage has two or more clips at each side to slide upon rails. 64d. Drawings.

16,513 October 19, 1889. Lace making. I. JARDINE, Raleighstreet, Nottingham.

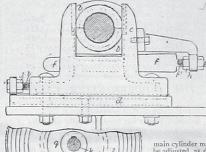
The combs a are reduced in thickness on one or both sides and in proximity to the casting metal b, as shewn at c, to render them flexible laterally and to form a recess for the escape of dirt, etc. 64d.

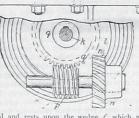
16,517. October 19th, 1889, Spinning. W. Loke and F.



16,517. October 19th, 1889. Spinning. W. LORD and F. WOODHEAD, Canal Street Works, Todmorden.

Carding engines.-In order that the bearings for the shaft of the





main cylinder may be adjusted as desired the pedestal c is mounted upon slides d, and is adjustable thereon by means of a screw and nut arrangement j, i, and each bearing or journal box b is fitted in slides in the pedes

box δ is fitted in slides in the pedestal and rests upon the wedge f, which may be adjusted by another screw and nut arrangement f, k. The star wheel shaft k for driving the flats is driven from a pulley I loose on the shaft k for driving a spiral or worm on its face gearing with a toothed wheel n which drives the shaft k through the worm gearing q, k. 6Id 16,522. October 10th 1880

16,522. October 19th, 1889, Spinning. A. Thompson, Springfield Mills, Alloa, Clackmannan. Willows.—The feed apparatus and the delivery door are operated intermittently and automatically. 6jd. Drawings.

16,553. October 19th, 1889. Looms. L. Haslam, Ravenswood, near Bolton, and C. Marshall, 151, Mayorstreet, Bolton-lane, Bolton.



Bolton-lane, Bolton,

For weaving netted or leno fabrics there are employed, in front of an ordinary heald, two special reed-like healds having needles g, as shewn, in alternate dents. By means of cams and levers the ordinary up and down motion is imparted to the three healds, and, in addition, a to and fro endwise motion is imparted to the two special healds. The warp threads which are worked by the latter are thus made to cross those worked by the ordinary heald. These crossing threads pass over a reciprocating roller or bar which gives the slack required.

PATENTS. W. P. THOMPSON & CO.

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